

Product datasheet for **MG205391**

Gnai3 (NM_010306) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Gnai3 (NM_010306) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Gnai3
Synonyms:	A1158965; AW537698; Galphai3; Gnai-3
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>MG205391 representing NM_010306 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGGCTGCACGTTGAGCGCCGAGGACAAGGCGCGGTGGAGCGGAGCAAGATGATCGACCGCAACTTGC
GGGAGGACGGGGAGAAAGCGCCAAAGAAGTGAAGCTGCTGCTCGGCGCTGGAGAATCTGGTAAAAG
TACCATCGTGAACAGATGAAAATCATTTCATGAGGACGGCTATTCAGAGGACGAATGTAACAGTATAAA
GTAGTTGTCTACAGCAACTACTATTCAGTCCATCATTGCAATCATACGAGCCATGGGACGGTTGAAGATTG
ATTTTGGGAATCTGCCAGAGCAGATGATGCCCGACAGTTATTTGTTTTAGCTGGGAGTGTGAAGAAGG
AGTCATGACTTCAGAAGTACGAGCGTGATTAACGTTTTATGGCGAGATGGCGGGTACAGGCATGCTTT
AGCAGGTCCAGGGAATATCAGCTCAATGATTCTGCTTCATACTACCTAAATGATTTGGATAGAATATCCC
AGACCAACTACATTCCAAGTCAAGTGTCTTCGACAAGAGTGAAGACTACAGGCATTGTGGAGAC
CCACTTCACTTCAAGGAAGTCACTTCAAAATGTTTGTGTAGGTGGCCAAAGATCCGAACGAAAAAG
TGGATTCAGTGTGGGAGTGACAGCAATATCTTTGTGTGGCTCTCAGTGATTACGACCTTGTTC
TGGCTGAGGATGAGGAAATGAACCGAATGCATGAAAGCATGAAATGTTTGACAGCATTGTAACAACAA
ATGTTTACAGACACTTCAATCATTCTCTTTCTTAATAAGAAAGACCTTTTTGAGGAAAAATAAAGAGG
AGTCCATTAACAATCTGTTATCCAGAATACACAGGTTCCAATACATACGAAGAGGCGCTGCTTACATT
AGTCCCAGTTTGAAGATCTGAACCGAAGAAAAGATACCAAGGAGGCTACACTCACCTGTGCCAC
AGACACCAAAAATGTGCAGTTTGTGTTTGTGCTGTTACGGATGTCATCATTAAAAACAACCTTAAAGGAA
TGTGGCTTTAT

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA



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Protein Sequence: >MG205391 representing NM_010306
Red=Cloning site Green=Tags(s)

MGCTLSAEDKAAVERSKMIDRNLRDGEKAAKEVKLLLLGAGESGKSTIVKQMKIIHEDGYSEDECKQYK
 VVYYSNTIQSIIAIIIRAMGRKIDFGESARADDARQLFVLGSAEEGVMSELAGVIKRLWRDGGVQACF
 SRSREYQLNDSASYLLNDLDRISQTNYPQDVLRTVKTGIVETHFTFKELYFKMFDVGGQRSEKPK
 WIHCFEGVTAIIFCVALSVDYDLVLAEDEEMNRMHESMKLFDSICNNKWFDTDSIILFLNKKDLFEKIKR
 SPLTICYPEYTGSNTYEEAAAYIQCFEDLNRRKDTKEYVTHFTCATDTKNVQVFDAVTDVVIKNNLKE
 CGLY

TRTRPLE - GFP Tag - V

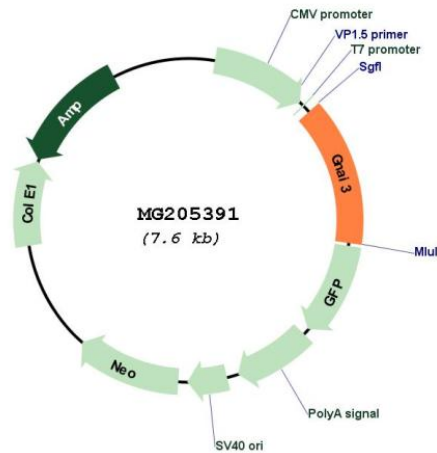
Restriction Sites:

Sgfl-MluI

Cloning Scheme:



Plasmid Map:



ACCN:

NM_010306

ORF Size:	1062 bp
OTI Disclaimer:	The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in agreement with the reference, but a complete review of all prevailing variants is recommended prior to use. More info
OTI Annotation:	This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.
Components:	The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).
Reconstitution Method:	<ol style="list-style-type: none">1. Centrifuge at 5,000xg for 5min.2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.3. Close the tube and incubate for 10 minutes at room temperature.4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.5. Store the suspended plasmid at -20°C. The DNA is stable for at least one year from date of shipping when stored at -20°C.
RefSeq:	NM_010306.3
RefSeq Size:	3211 bp
RefSeq ORF:	1065 bp
Locus ID:	14679
UniProt ID:	Q9DC51
Cytogenetics:	3 46.83 cM
Gene Summary:	Heterotrimeric guanine nucleotide-binding proteins (G proteins) function as transducers downstream of G protein-coupled receptors (GPCRs) in numerous signaling cascades. The alpha chain contains the guanine nucleotide binding site and alternates between an active, GTP-bound state and an inactive, GDP-bound state. Signaling by an activated GPCR promotes GDP release and GTP binding. The alpha subunit has a low GTPase activity that converts bound GTP to GDP, thereby terminating the signal. Both GDP release and GTP hydrolysis are modulated by numerous regulatory proteins. Signaling is mediated via effector proteins, such as adenylylase. Inhibits adenylylase activity, leading to decreased intracellular cAMP levels. Stimulates the activity of receptor-regulated K(+) channels. The active GTP-bound form prevents the association of RGS14 with centrosomes and is required for the translocation of RGS14 from the cytoplasm to the plasma membrane. May play a role in cell division.[UniProtKB/Swiss-Prot Function]